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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,848	10/30/2003	Douglas L. McMakin	50005-145	9762

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EXAMINER

ALSOMIRI, ISAM A

ART UNIT PAPER NUMBER

3662

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/697,848	MCMAKIN ET AL.	
	Examiner	Art Unit	
	Isam Alsomiri	3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 21-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>112805;072905</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of group I claims 1-20 in the reply filed on March 14 2006 is acknowledged. The traversal is on the ground(s) that group I claim 1 recites "a system", and the classification 342/59 requires two or more systems. Therefore, the restriction based on classification is not proper. This is not found persuasive because even if both groups I and II have the same classification. The restriction is still proper because of their recognized divergent subject matter (previous office action page 2 last paragraph). Further, regarding classification, both groups might share similar classification. However, both do require search in different classifications as well because of their recognized divergent subject matter.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheen et al. US005859609A in view of Yukl US006057761A.**

Referring to claim 1, Sheen discloses in figures 2 an array to define an interrogation region therebetween, the array being structured to turn about the

interrogation region to interrogate a person in the interrogation region with electromagnetic radiation at one or more frequencies in a range of about 200 MHz to about 1 THz to provide corresponding interrogation signals (see col. 4 lines 14-15); and one or more processors operable to establish data corresponding to a topographical image determined from the interrogation signals and generate an output as a function of the data (see col. 9 lines 35-39); a device responsive to the output to provide an indication to an operator if the person is suspected of carrying one or more concealed objects that pose a threat to security (see figure 1). Sheen teaches only one array that rotates around the target for the interrogation. Yukl teaches a similar system for interrogating a target using two arrays 16, 18, and the target rotates around the two target for quicker scan. It would have been obvious to modify Sheen's system to include two arrays spaced apart as in Yukl, and to rotate the arrays around the target in half the time a single array takes; therefore, obtaining quicker full scan of the target.

Referring to claim 2, the combination of Sheen and Yukl teaches the arrays are each provided with a panel and a mechanism to move a corresponding one of the arrays along a curvilinear path about the interrogation region.

Referring to claim 3, the combination teaches the curvilinear path approximates an arc of a circle.

Referring to claim 4, the combination is silent about the panel for each of the arrays is at least partially transparent to facilitate viewing therethrough by an operator. However, having a partially transparent panel is very well known. It would have been

obvious to modify the combination to use the claimed panel for monitoring the interrogation or the person inside the system.

Referring to claim 5, the combination teaches the device includes a display and the one or more processors include means for generating the output in a form representative of one or more cross sectional views of the person (see figure 1-2).

Referring to claims 6, 10, 16-17, the combination teaches the arrays are each structured to operate at several different frequencies (see Sheen col. 2 lines 30-33) and each inherently correspond to an arc about the interrogation region subtending an angle of at least 120 degrees.

Referring to claims 7, the combination teaches the one or more processors are operable to generate the data by combining data sets corresponding to a number of different cylindrical images and the arrays are each structured to provide a semi-cylindrical scan (see col. 2 lines 27-30).

Referring to claims 8, 15, Sheen discloses in figures 2 an array to define an interrogation region therebetween, the array being structured to turn about the interrogation region to interrogate a person in the interrogation region with electromagnetic radiation at one or more frequencies (see col. 2 lines 30-33) in a range of about 200 MHz to about 1 THz to provide corresponding interrogation signals (see col. 4 lines 14-15); and one or more processors operable to establish data corresponding to a topographical image determined from the interrogation signals and generate an output as a function of the data (see col. 9 lines 35-39); a device responsive to the output to provide an indication to an operator if the person is

suspected of carrying one or more concealed objects that pose a threat to security (see figure 1). Sheen teaches only one array that rotates around the target for the interrogation. Yukl teaches a similar system for interrogating a target using two arrays 16, 18, and the target rotates around the two target for quicker scan. It would have been obvious to modify Sheen's system to include two arrays spaced apart as in Yukl, and to rotate the arrays around the target in half the time a single array takes; therefore, obtaining quicker full scan of the target. The combination teaches generating cylindrical image data corresponding to a number of cylindrical images from the interrogation to detect if the person is concealing an object (see col. 2 lines 27-30).

Referring to claim 9, the combination teaches moving each of the arrays along a path positioned about the person (see figure Yukl figure 1).

Referring to claim 11, it's inherent that at least a portion of the path is rectilinear.

Referring to claims 12-13, 19-20, the combination teaches displaying one or more cross sectional views of the person based on the topographical cylindrical image data (see col. 9 lines 35-39).

Referring to claims 14, 18, the combination teaches the arrays oppose one another to define an interrogation region therebetween and are arranged to provide a security checkpoint (see figure Yukl figure 4).

### ***Response to Arguments***

Applicant's arguments filed November 28, 2005 have been fully considered but they are not persuasive. Regarding claims 1-7, 12-13 and 15-20, applicant argues that

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sheen does not teach “one or more processors operable to establish data corresponding to a topographical image determined from the interrogation signals”. In response, Sheen clearly teaches the claimed data corresponding to a topographical image “topographical perturbations of the target” col. 9 line 39. Regarding claim 5, applicant argues that Sheen does not teach generating one or more cross sectional views of the person. In response, any of figures 6-12 reads on one cross sectional view of a person, applicant did not limit the width of the cross section. Regarding claims 7-14, applicant argues that Sheen does not teach “combining data sets corresponding to a number of different cylindrical images”. In response, Sheen teaches “the actual data processing... produces a single image from a single viewing angle or arc segment of the 360° data”. Therefore, Sheen generate data from the different cylindrical interrogations.

Regarding claim 4, applicant is challenging the official notice taking by the examiner regarding the “the panel for each of the arrays is at least partially transparent to facilitate viewing therethrough by an operator”. In response: it is well known to have a transparent panels to facilitate viewing, Dougal US2005/0234383 teaches an electromagnetic radiation therapy system, including using a partially transparent panel (see page 3 [0052]). Therefore, partially transparent panels are well known and are used widely not just for interrogation, but also for any type of detection system where an operator needs to view the subject being radiated or detected.

Therefore, the rejections are maintained.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isam Alsomiri whose telephone number is 571-272-6970. The examiner can normally be reached on Monday-Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Isam Alsomiri



May 22, 2006



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